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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,655	08/23/2001	Helmut Hartl	011072	7907
23850	7590	05/19/2004	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006			MCCLENDON, SANZA L	
			ART UNIT	PAPER NUMBER
			1711	
DATE MAILED: 05/19/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/934,655

Applicant(s)

HARTL ET AL.

Examiner

Sanza L McClendon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 6-25 is/are pending in the application.
4a) Of the above claim(s) 3,4,10-13,19,21,23 and 25 is/are withdrawn from consideration.
5) ☒ Claim(s) 1,2,9,14-16,18,20,22 and 24 is/are allowed.
6) ☒ Claim(s) 6,8 and 17 is/are rejected.
7) ☒ Claim(s) 7 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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DETAILED ACTION

Response to Amendment

1. In response to the Amendment received on February 20, 2004, the examiner has carefully considered the amendments. The examiner acknowledges the cancellation of claim 5.

Election/Restrictions

2. Applicant's election with traverse of Group I in Paper dated February 20, 2004 is acknowledged. The traversal is on the ground(s) that the search for the compound in Group I would be the same search required for Group II because the compounds of both groups differ only by the group at the 4-position of the dioxolane ($-\text{CH}_2\text{Cl}$ for Group II and $=\text{CH}_2$ for Group I) and that composition of Group III does not have an intermediate-final product relationship with Group I. This is not found persuasive because these compounds (Group I and Group II) are two distinct compounds that have obtained different search areas in the art and the reasoning for Group III and Group I does have an intermediate because the compound of Group I will lose its identity once polymerized in the presence of a photoinitiator.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 1-2 and 9-6 are generic and allowable. Accordingly, the restriction requirement as to the encompassed species is hereby withdrawn and claims 14-16, directed to the species of photosensitive composition comprising the compound of claim 1 is no longer withdrawn from consideration since all of the claims to this species depend from or otherwise include each of the limitations of an allowed generic claim. However, claims 3-4, 10-13, 19, 21, 23, and 25 are, directed to the species of Group II remain withdrawn from consideration since they do not depend upon or otherwise include all the limitations of an allowed generic claim as required by 37 CFR 1.141.

In view of the above noted withdrawal of the restriction requirement as to the linked species, applicant(s) are advised that if any claim(s) depending from or including all the limitations of the allowable generic linking claim(s) be presented in a continuation or divisional application, such claims may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once a restriction requirement is

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withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Response to Arguments

4. Applicant's arguments, see Amendment, filed February 20, 2004, with respect to claims 1-2 and 5-9 have been fully considered and are persuasive. The rejection of claim 1 as being anticipated under 35 USC 102(b) by Sokolov et al and Orth et al (DE 906514) has been withdrawn. The rejection of claim 5 under 35 USC 102(b) as being anticipated or, in the alternative, under 35 USC 103(a) as being unpatentable over Sokolov et al has been withdrawn. The rejection of claims 7-8 under 35 USC 103(a) as being unpatentable over Sokolov et al has been withdrawn. However, the arguments for newly added claim 17 will be rejected under 35 USC 102(b) as being anticipated by Sokolov et al and Orth et al (DE 906514) because this is the same claim as original claim 1—see below. Newly submitted claims 18, 21, 23, and 25 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: These claims depended from Group II, which have been withdrawn by election on July 24, 2003.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 18, 21, 23, and 25 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Sokolov et al (translated abstract of Latvijas PSR Zinatnu Akademijas Vestis, (6), 667-72, 1964).

Sokolov et al teaches the preparation of 1,2-bis (4-methylene-1, 3-dioxolan-2-yl) ethane. This anticipates the compound of claim 1 when $m = 0$, $n=2$, X is a single bond and $o = 2$.

2. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Orth (DE 906514).

Note: chemical abstract number 52:59140 is being used as an English language translation.

Orth et al teaches the preparation 2,2-bis (4-methylene-1, 3-dioxolan-1, 4-yl) butane. This appears to anticipate claim 1, when $m = 0$, $n=4$, X is a single bond, and $o = 2$.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd.

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App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 6 recites the broad recitation " temperature from 0 °C to 150 °C" , and the claim also recites temperature from 15 °C to 60 °C which is the narrower statement of the range/limitation.

6. The term "good" in claim 8 is a relative term which renders the claim indefinite. The term "good" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear what type of solvent is " good" for a base. Clarification is requested.

Allowable Subject Matter

7. Claims 1-2, 9, 14-16, 18, 20, 22, and 24 are allowed.

8. The following is an examiner's statement of reasons for allowance: The primary reason for allowance is the 4-methylene- 1,3-dioxolane compound having the general formula found in claim 1 with it corresponding definitions. The prior art teaches 4-methylene- 1,3-dioxolane compound having the general formula found in claim 1, wherein x denotes a c-c single bond, however the prior art fails to teach wherein X is a C1 to C18 straight chain alkylene, C1 to C18 branched alkylene, C5-C6 cycloalkylene, C8-C18-arylalkylene, of - CH₂ (OCH₂CH₂)_pOCH₂- or -CH₂ (OCH (CH₃) CH₂)_pOCH₂- moiety. Therefore the instant invention of claims 1-2 and 7-9 are allowed. In addition, the prior art fails to teach the 4-methylene- 1,3-dioxolane compound of claim 1 in a photosensitive composition comprising a photoinitiator.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled " Comments on Statement of Reasons for Allowance."

9. Claims 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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10. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach a method as outlined in claim 6, wherein the treatment is implemented in the presence of a solvent.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Sanza L McClendon

Examiner

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A handwritten signature in black ink, appearing to read "James J. Seidleck".

James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700